ICES CM 2017/Q

Integrating economic and social sciences in marine ecosystem services research

TITLE: WGEAWESS: Integrated Ecosystems Assessment of the Western European Shelf Seas

Eider Andonegi, Debbi Pedreschi*, Maria de Fatima Borges, Marcos Llope, Steven Beggs & Dave Reid

Traditionally, integrated ecosystem assessment (IEA) has been developed regionally using different strategies and tools, leading to problems of comparability and integration and even different assessments of status (e.g. GES) across shared boundaries. WGEAWESS undertakes IEA throughout the western European shelf seas to support ecosystem-based management (EBM) measures at the local, national, regional and EU levels. Relevant to key EU Directives (e.g. MSFD, WFD & CFP), IEA makes explicit links between human activities and ecosystem health, assessing the scale of impact and recovery, enabling targeted management and mitigation measures. Employing a combination of integrated trend analyses to generate time series of pressures and impacts, semi-quantitative methods to fill data gaps and inform future research effort, and reviewing and updating existing ecosystem models throughout the regions, WGEAWESS reviews and assesses patterns of human activities, their pressures, and ecosystem components to underpin the process.

WGEAWESS is developing plans to advance this work thought a large scale project that would use quantitative integrators of ecosystem functioning (indicators) in experimental platforms to assess and gain insight into pressure effects and proliferation, and to forecast futures under various management scenarios. Case study investigations, with priorities specified via direct engagement with relevant stakeholders, would enable management decisions to be based on regional and/or local priorities, and ensuring recognition of the social context. Finally, a guide on translating IEA into advice for EBM and demonstrating its practical use in informing specific issues regarding the management of ecosystem services would be produced, along with an interactive web-based 'living' tool which will and provide a key resource for researchers, decision-makers and the general public alike.

Keywords: risk assessment, decision support, integrated ecosystems assessment, integrated trend analysis, maps, modelling, stakeholders

Contact Author: Debbi Pedreschi, Marine Institute, Rinville, Oranmore, Co. Galway, Ireland. Email: debbi.pedreschi@marine.ie